Waves API 550

User Manual

WAVES

TABLE OF CONTENTS

CHAPTER 1 – INTRODUCTION **3**

1.1 WELCOME 3
1.2 PRODUCT OVERVIEW 4
1.3 COMPONENTS 5

CHAPTER 2 – QUICKSTART GUIDE **6**

CHAPTER 3 – CONTROLS AND INTERFACE **7**

3.1 EQ SECTION 8
3.2 OUTPUT SECTION 12
3.3 WAVESYSTEM TOOLBAR 13

APPENDIX A – 550A CONTROLS **14**

APPENDIX B – 550B CONTROLS **14**

Chapter 1 – Introduction

1.1 Welcome

Thank you for choosing Waves! In order to get the most out of your new Waves plugin, please take a moment to read this user guide.

To install software and manage your licenses, you need to have a free Waves account. Sign up at www.waves.com. With a Waves account you can keep track of your products, renew your Waves Update Plan, participate in bonus programs, and keep up to date with important information.

We suggest that you become familiar with the Waves Support pages: www.waves.com/support. There are technical articles about installation, troubleshooting, specifications, and more. Plus, you'll find company contact information and Waves Support news.

1.2 Product Overview

The Waves API 550 consists of the API 550A, a 3-Band parametric equalizer with 5 fixed cutoff points per band and the API 550B, a 4-Band parametric equalizer with 7 fixed cutoff points per band.

Modeled on the late 1960's legend, the API 550A EQ delivers a sound that has been a hallmark of high end studios for decades. It provides reciprocal equalization at 15 points in 5 steps of boost divided into three overlapping ranges. The high and low frequency ranges are individually selectable as either peaking or shelving, and a band-pass filter can be inserted independently of all other settings.

Featuring four overlapped EQ bands, the API 550B features 7 switchable filter frequencies spanning up to 5 octaves per band. "Proportional Q" automatically widens the filter bandwidth at lower settings and narrows it at higher settings. It even lets you undo previous processing, affect or even reverse tonal modifications. With its vast range of tonal possibilities, the API 550B is an exceptionally versatile EQ.

1.3 Components

WaveShell technology enables us to split Waves processors into smaller plug-ins, which we call **components**. Having a choice of components for a particular processor gives you the flexibility to choose the configuration best suited to your material.

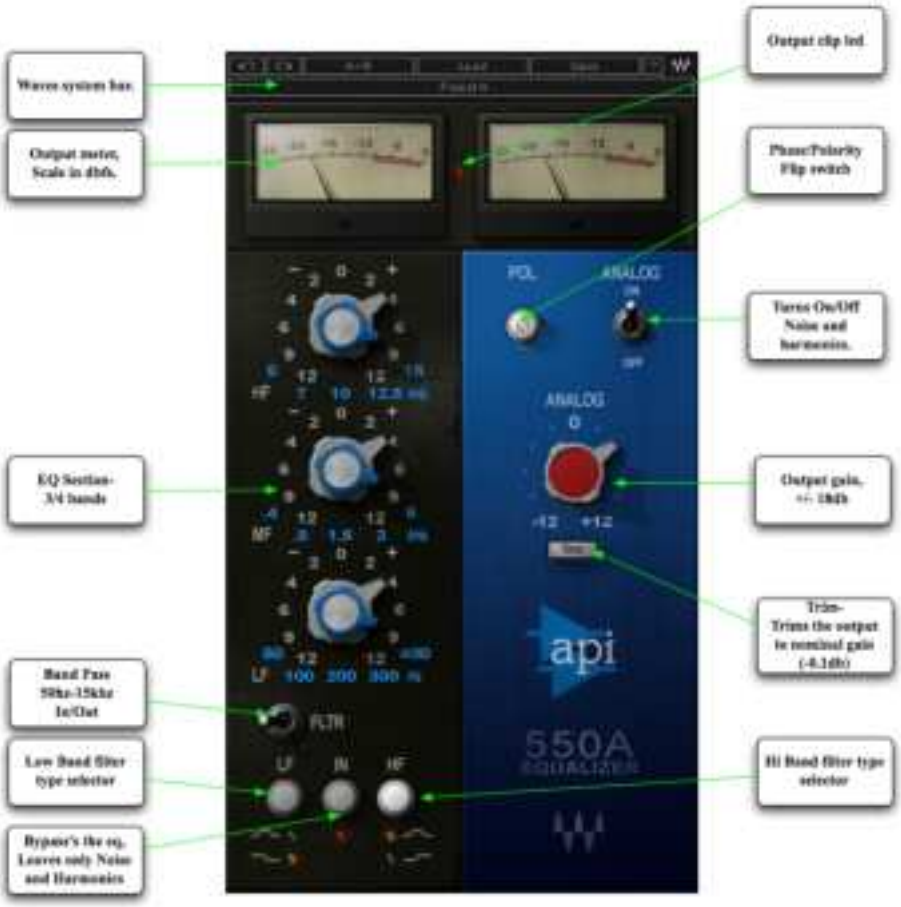
The API 550 has four component processors:

API 550A Stereo – A 3-Band stereo equalizer
API 550A Mono – A 3-Band mono equalizer
API 550B Stereo – A 4-Band stereo equalizer
API 550B Mono – A 4-Band mono equalizer

Chapter 2 – Quickstart Guide

Approach the Waves API 550 as you would any conventional EQ. Since the API 550 features “Proportional Q,” which intuitively widens the filter bandwidth at lower settings and narrows it at higher settings, feel free to push the API 550 harder than you normally would other equalizers. The API 550 will deliver smooth, natural, and musical sound even at the most extreme settings.

Chapter 3 – Controls and Interface



3.1 EQ Section

API 550A Controls

Low Band Gain

Range
-12dB to +12dB (2-3dB steps)
Default
0dB

Low Band Frequency

Filter types
Shelf, Bell
Default
Shelf
Cutoff points
50Hz, 100Hz, 200Hz, 300Hz, 400Hz
Default
50Hz

Mid Band Gain

Range
-12dB to +12dB (2-3dB steps)
Default
0dB

Mid Band Frequency

Range
.4kHz, .8kHz, 1.5kHz, 3kHz, 5kHz
Default
1.5kHz
Filter types
Bell

High Band Gain

Range
-12dB to +12dB (2-3dB steps)
Default
0dB

High Band Frequency

Range
5kHz, 7kHz, 10kHz, 12.5kHz, 15kHz
Default
7kHz

Bandpass Filter
Applies a 50Hz-15kHz bandpass filter to the entire signal

Low Shelf/Bell Selector

Range
Shelf or Bell
Default
Shelf

High Shelf/Bell Selector

Range
Shelf or Bell
Default
Shelf

API 550B Controls

Low Band Gain

Range
-12dB to +12dB (2-3dB steps)
Default
0dB

Low Band Frequency

Range
30Hz, 40Hz, 50Hz, 100Hz, 200Hz, 300Hz, 400Hz
Default
50Hz
Filter types
Shelf, Bell
Cutoff points
30Hz, 40Hz, 50Hz, 100Hz, 200Hz, 300Hz, 400Hz

Low Mid Band Gain

Range
-12dB to +12dB (2-3dB steps)
Default
0dB

Low Mid Band Frequency

Range
75Hz, 150Hz, 180Hz, 240Hz, 500Hz, 700Hz, 1kHz
Default
500Hz
Filter types
Bell
Cutoff points
75Hz, 150Hz, 180Hz, 240Hz, 500Hz, 700Hz, 1kHz

High Mid Band Gain

Range
-12dB to +12dB (2-3dB steps)
Default
0dB

High Mid Band Frequency

Range
0.8kHz, 1.5kHz, 3kHz, 5kHz, 8kHz, 10kHz, 12.5kHz
Default
5kHz
Filter types
Bell
Cutoff points
0.8kHz, 1.5kHz, 3kHz, 5kHz, 8kHz, 10kHz, 12.5kHz

High Band Gain

Range
-12dB to 12dB (2-3dB steps)
Default
Off

High Band Frequency

Range
2.5kHz, 5kHz, 7kHz, 10kHz, 12.5kHz, 15kHz, 20kHz
Default
10kHz
Filter types
Shelf, Bell
Cutoff points
2.5kHz, 5kHz, 7kHz, 10kHz, 12.5kHz, 15kHz, 20kHz

Low Shelf/Bell Selector

Range
Shelf or Bell
Default
Shelf

High Shelf/Bell Selector

Range
Shelf or Bell
Default
Shelf

In
Turns the EQ On/Off but leaves the Analog modeling.

Range
On/Off
Default
On

3.2 Output Section

The Output section, which is identical on both the API 550A and API 550B, consists of controls for Polarity (Phase Inversion) Analog Modeling, Output Level, and Trim.

Pol (Polarity)
Shifts the phase by 180 degrees.

Range
0deg-180deg
Default
0deg

Analog
Turns the Analog modeling on and off.

Range
On/Off
Default
On

Output
Controls the output level.

Range
-18dB to +18dB (in 0.1dB steps)
Default
0dB

Trim
Displays the maximum peak level of the output signal and its distance from nominal gain (-0.1dBfs).

Range
-inf to 0dB
Default
-inf

Meters

The API 550 meters display output level in dBFS. The LED located between the two meters lights up when output signal is clipping.

3.3 WaveSystem Toolbar

Use the bar at the top of the plugin to save and load presets, compare settings, undo and redo steps, and resize the plugin. To learn more, click the icon at the upper-right corner of the window and open the WaveSystem Guide.

Appendix A – 550A Controls

Control	Range	Default
Low Band Gain	-12dB to 12dB (2-3dB's steps)	0dB
Low Band Frequency	50Hz,100Hz,200Hz,300Hz,400Hz	50Hz
Mid Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
Mid Band Frequency	.4kHz,.8kHz,1.5kHz,3kHz,5kHz.	1.5kHz
High Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
High Band Frequency	5kHz,7kHz,10kHz,12.5kHz,15kHz.	7kHz
Filter	Bandpass 50Hz-15kHz	Off
Low shelf/bell selector	Shelf or Bell	Shelf
High shelf/bell selector	Shelf or Bell	Shelf
Output	-18dB to 18dB	0dB
Trim	-inf to 0dB	-inf
Analog	On/Off	On
Phase	0deg- 180deg	0deg

Appendix B – 550B Controls

Control	Range	Default
Low Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
Low Band Frequency	30Hz,40Hz,50Hz,100Hz,200Hz,300Hz,400Hz	50Hz
Low Mid Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
Low Mid Band Frequency	75Hz,150Hz,180Hz,240Hz,500Hz,700Hz,1kHz.	500Hz
High Mid Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
High Mid Band Frequency	0.8kHz,1.5kHz,3kHz,5kHz,8kHz,10kHz,12.5kHz.	5kHz
High Band Gain	-12dB to 12dB(2-3dB's steps)	Off
High Band Frequency	2.5kHz,5kHz,7kHz,10kHz,12.5kHz,15kHz,20kHz.	10kHz
Low shelf/bell selector	Shelf or Bell	Shelf
High shelf/bell selector	Shelf or Bell	Shelf
Output	-18dB to 18dB	0dB
Trim	-inf to 0dB	-inf
Analog	On/Off	On
Phase	0deg- 180deg	0deg